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A CASE OF KALA-AZAR.

By T. R. WHIPHAM, M.D.Oxon, M.R.C.P.Lond.,

*Physician to the Evelina Hospital; Assistant Physician and Physician-in-Charge
of the Children's Department at the Prince of Wales's Hospital.*

THE occurrence of cases of tropical diseases in this country are of more than passing academical interest. They give us a glimpse into a field of medicine which is more or less unknown to the majority of those who have not lived in the East. The report, therefore, of a case of kala-azar which was recently under my care may be instructive. Considerable attention has been paid of late to enlargements of the spleen, and this form of splenomegaly is very rarely seen in England.

In the first place it is necessary to make some general observations upon the disease in question. It is known by several names, Kala-azar being that most frequently employed, though Black fever, Dum-Dum fever, and Tropical splenomegaly, are common synonyms. The disease is characterised by a marked enlargement of the spleen and frequently of the liver also. There is progressive anæmia and emaciation, and sometimes the skin shows a peculiar form of hyperpigmentation, from which the name kala-azar or black fever is derived. The fever runs a subacute or chronic course and the mortality is excessively high.

The condition appears to have been first observed in the year 1869 and at that time it was thought to be malarial in nature. A few years later it became epidemic, but it was not until 1882 that the first account of the disease was published by Clarke. The malarial origin of kala-azar was upheld by Rogers as late as 1897, and even two years later Ross supported the theory, though he was of opinion that there was some superadded secondary infection. It is to the credit of Stephens, however, that in 1894 he recognised that the disease was distinct from malaria, though he considered that it was allied to it. Other observers attributed the condition to ankylostomiasis and a malignant form of Mediterranean fever, but it was not until Leishman discovered the parasitic bodies with which his name is associated that the true cause became evident. In 1900 Leishman found certain parasites which are now known as Leishman-Donovan bodies in films taken post-mortem from the spleen of a soldier who died from fever contracted at Dum-Dum, but he did not publish his discovery until 1903. A few months later in the same year Donovan observed the same parasites in the blood of a case of splenomegaly obtained by splenic puncture during life. This observation was confirmed by Manson and Rogers, and from that time the true nature of the disease has been established.

The parasite, or Leishman-Donovan body, is round or oval in shape with a diameter of 2 to $3.5\ \mu$ and has a granular cytoplasm. The nucleus is oval and centrally placed in the resting stage, but is elongated and situated at the periphery prior to division. There is also present a smaller chromatin mass, usually in the form of a short rod, which is either perpendicular to, or at a tangent with, the nucleus and stains more readily than the nucleus itself. The bodies are found in the endothelial cells in the capillaries of the liver, spleen, bone-marrow, lymphatic glands and mucosa of the intestine, and more rarely in the circulating blood shortly before death. The parasites in man are almost invariably intra-cellular: they divide, causing the containing cell to enlarge and after disintegration of the nucleus to disrupt. The organisms thus set free enter other endothelial cells or are taken up by the leucocytes. The parasites are probably conveyed by biting insects, such as the bug, in the body of which according to Patton they develop into flagellated forms. Artificially, they may be cultivated at a temperature of 20 to 22°C . in blood to which sterile citrate of sodium solution has been added to prevent coagulation. They are then seen to enlarge very rapidly; the cytoplasm becomes opaque and vacuolated, and when the bodies attain a size of 7 to $9\ \mu$ they assume a pyriform shape

and become flagellated. They never present, however, an undulating membrane as is the case with trypanosomes. The flagellated forms are 12 to 20 μ in length and multiply by longitudinal fission, sometimes so finely as to resemble spirilla. All attempts to transmit the parasites of the Indian form of the disease to animals have hitherto failed, but in man the disease is probably spread by means of bugs. This accounts for the fact that it is the poorer class of both Europeans and natives which is principally attacked and for the tendency of the disease to run in families. Both sexes are affected and at all ages, though the Indian kala-azar is chiefly found in adults and the Mediterranean form in young children. Unlike malaria this disease shows a predilection for the acclimatised; in them it is as severe as in new-comers.

Kala-azar is endemic in India, especially in the Eastern parts, and in Ceylon. It is also found in China and Arabia and along the Mediterranean coasts in Egypt, Tunis and Algeria, and in the Soudan. Cases have been reported in Crete, Greece, Sicily and Malta, and as far north as Naples and Spain. The disease at times becomes epidemic, but the spread of infection on the whole is slow. It tends to die out as it spreads, being endemic in a given area for a period of about six years.

The incubation period is difficult to determine and appears to vary as a rule from three weeks to several months, though less than ten days has been known. The attack commences with a high fever, preceded it may be by a rigor and sometimes by vomiting. The initial pyrexia is intermittent, or more frequently remittent, and the temperature-chart may show two remissions in the course of twenty-four hours, which is said to be characteristic of the disease. The fever lasts from two to six weeks or longer, and then the temperature declines. During this time the liver and spleen enlarge, varying in size at first with the fluctuations of the temperature: some tenderness of these organs may also be observed. Then follows a period of comparative apyrexia and improvement, which is succeeded by a further attack of fever and a renewed increase in the size of the liver and spleen. Spells of fever and apyrexia may recur for months, unchecked by quinine or other drugs, until finally a low form of fever with a temperature rarely above 102° F. becomes more or less persistent.

As the disease progresses the patient becomes anæmic and markedly emaciated with a large protuberant abdomen, through the wasted wall of which the outlines of the enlarged liver and spleen may be seen. Ascites may be present and œdema of the legs

frequently occurs. In many cases the skin acquires a peculiar earthy-grey colour, and the hair is dull and brittle and may fall out. Hæmorrhage may occur from the mucous membranes and under the skin, but the anæmia in uncomplicated cases is only of moderate severity. The erythrocytes, as a rule, number over 2,500,000 per c.mm. and not infrequently over four millions. The chief change, however, is a leucopenia, especially of the polymorphonuclears, the lymphocytes and large mononuclears being relatively increased. The coagulability and alkalinity of the blood are both decreased. The tongue is often uniformly clean, even during the periods of pyrexia, and the appetite and digestion, as a rule, are good. The condition may continue for months or even as long as two years, but the ultimate prognosis is extremely bad, the mortality being about 96 per cent. Death occurs from asthenia or from some complication, such as dysentery, tubercle or pneumonia.

The pathological changes consist of a great enlargement of the spleen which is firm and of a deep red colour and may show perisplenitis. The trabeculæ are thickened, and the pulp is increased and full of blood. Crowds of Leishman-Donovan bodies are present in the mononuclear cells and can be seen in smears. The liver is frequently enlarged and is brown or mottled on section: cirrhotic changes may be present. The portal capillaries are dilated, and parasites in abundance can be seen in the large mononuclear cells which are either attached to the walls or free within the lumina. The liver-cells are often degenerated, but no parasites are found within them. In the bones the yellow marrow is converted into red and is packed with parasite-laden cells. Ulceration of the intestines frequently occurs: in these lesions the parasitic bodies are present. They are also to be found in ulcers of the skin and in the lymphatic glands. In the kidney the bodies are occasionally met with in the blood-vessels, but never in the epithelium of the tubules.

The diagnosis depends entirely upon the blood-examination and the presence of Leishman-Donovan bodies. In this way alone can the disease be distinguished from leukæmia, malaria or Banti's disease.

Treatment is very unsatisfactory. Intra-muscular injections of atoxyl daily or every alternate day in doses up to 3 gr. seem to afford a slight hope of success. Vigorous quinine treatment is also recommended. Castellani and Chalmers report* an apparent

* 'Manual of Tropical Medicine,' Castellani and Chalmers, 2nd edition, p. 957. Frequent reference has been made to this work in compiling this account of the disease.

recovery after the administration of quinine sulphate (30 gr.) and euquinine (30 gr.) daily by the mouth together with a daily intramuscular injection of quinine hydrochloride (15 gr.) alternating with one of quinine cacodylate (4 gr.) Salvarsan has been used with but little success.

A form of the disease occurring in young children under the age of five years has been described as Infantile kala-azar. It is stated to occur chiefly along the Mediterranean coasts, and also to be found in dogs, whereas the Indian form is not. It is highly probable, however, that the two varieties are identical, the disease affecting various populations in a different manner, perhaps on account of differences in environment. The parasites are morphologically indistinguishable, and both children and adults are now known to be attacked wherever the disease is rife. Another form of febrile splenomegaly also occurs in the tropics, and has been termed Pseudo-kala-azar. These cases are indistinguishable clinically from true kala-azar, but in them the Leishman-Donovan parasites have not been found either during life or post-mortem, and its ætiology is at present unknown. Whether it is a separate disease remains to be proved.

Organisms closely resembling Leishman-Donovan bodies are also found in the condition known as Oriental sore or Delhi boil. In the human body they do not differ morphologically from the parasite of kala-azar, though certain minor differences have been described in the flagellated forms in cultures. If the organism is the same it must have lost some of its virulence, as in Oriental sore the prognosis is good, and the disease is very rarely fatal in itself. It is generally thought, however, that the parasite of Oriental sore, *Leishmania tropica*, is specifically distinct.

The case which I have to report was in many respects typical of the disease. The patient,* a boy, aged 5 years, was admitted into the Evelina Hospital for Children on December the 11th, 1913. He was the eldest of three children, the others being alive and well. His father, a soldier, had contracted kala-azar in Calcutta a year previously, and had died from that disease shortly before the boy left India. There was no history of the patient having had any illness prior to March, 1913, when he was taken ill while in Calcutta with fever and loss of appetite, and seemed to lose flesh. The motions at that time were white, but otherwise normal. He landed in England in June, and contracted whooping-cough. The abdomen was then for

* The case was shown at the Section for the Study of Disease in Children of the Royal Society of Medicine on January the 23rd, 1914.

the first time noticed to be enlarged. Subsequently he lost weight rapidly, and the size of the abdomen still further increased.

On admission the child was much wasted, especially in the limbs and chest, and was very anæmic. The cheeks presented a hectic flush, but the skin showed no hyper-pigmentation. The tongue was thickly furred. In the neck, axillæ, and groins the lymphatic glands could be felt slightly enlarged, and were hard and discrete. The thoracic viscera were normal. The abdomen was greatly enlarged, measuring $24\frac{1}{2}$ in. in circumference, and a small quantity of ascites appeared to be present. The liver dulness commenced above at the nipple-level, and the lower edge extended to 3 in. below the costal margin. The spleen was enormous, the anterior border, which was very thick, reaching to the middle line, where a notch could be felt just above the level of the umbilicus, while the lower pole filled practically the whole of the left iliac fossa. The urine and motions were both normal. The blood-count showed: Erythrocytes 3,220,000 per c.mm., and leucocytes 2200, of which polymorphonuclears amounted to 46 per cent., lymphocytes 38 per cent., large mononuclears 12 per cent., and transitionals 4 per cent.; the hæmoglobin was 66 per cent. The coagulation-time of the blood was diminished, being twelve minutes—that of normal blood being eight to nine minutes. Leishman-Donovan bodies were found in the blood obtained by puncture of the liver, but were not present in the peripheral circulation.

The temperature on admission was raised, and for the first week it presented a remittent character with intermissions varying between 97.4°F. and 103.4°F. , but the double daily remission was not very evident. The pulse and respiration rates were correspondingly increased, the former fluctuating between 120 and 168 per minute, while the latter was from 32 to 68. The patient, to commence with, was put on iron with increasing doses of arsenic. Weighing at first 15.3 kgrm., he lost during the first nine days 1.1 kgrm., but by January the 19th, 1914, he had regained his loss. The temperature after the first week became lower, being scarcely ever above 101°F. , and on December the 23rd it was practically normal, and remained so with only slight rises for just over a week. The boy's general condition showed but little change, though he was restless and fretful at times, owing to a troublesome cough and occasional toothache. He slept well, however, and his appetite was good.

At the beginning of January the temperature again took on a remittent character, though not so high as at first, the maximum being 101.4°F. , and œdema of the legs and scrotum became evident. On January the 20th the patient was put on to 1 gr. of quinine

sulphate thrice daily, the dose being increased subsequently to 2 gr. and then 4 gr. His weight further increased to 15.5 kgrm., but after February the 2nd it began to drop again, and atoxyl treatment was commenced on February the 7th, beginning with an injection of $\frac{1}{4}$ gr. into the muscles of the left thigh. This was increased by $\frac{1}{4}$ gr.



The patient, showing the enormous size of the spleen.

every three or four days, $\frac{1}{2}$ gr. being given on the 11th, $\frac{3}{4}$ gr. on the 14th, and 1 gr. on the 18th. The boy continued to lose weight, however, and on the 16th he had fallen to 14.2 kgrm. again, but during the next fortnight there was an improvement, and his weight gradually rose to 14.76 kgrm. On February the 21st a dose of atoxyl (gr.j) was repeated by injection into the right thigh. On the 24th and 28th $1\frac{1}{2}$ gr. were given, and on March the 4th 2 gr. The patient now began to lose ground rapidly. He became very drowsy at times, and suffered from otorrhœa and a profuse nasal discharge, which proved

to be non-diphtheritic. The cough was very troublesome, and there was considerable respiratory distress. The temperature became normal for a few days at a time, but for the most part it ranged between normal and 101° F., and so it continued until the end. Injections of 2 gr. of atoxyl were given on March the 7th, 11th, and 18th, by which date the weight had fallen to 13.26 kgrm. Epistaxis supervened, together with petechial hæmorrhages in the skin, and a final dose of atoxyl (gr. ij) was injected on March the 21st, the weight having decreased by a further .2 kgrm. Two days later the patient died quietly in an asthenic condition, almost exactly a year after the commencement of his illness. Altogether twelve doses of atoxyl were given in six weeks, but without any appreciable result. The short periods of apyrexia and improvement were merely transitory, and could not be attributed to any beneficial action of the drug.

A post-mortem examination was performed fourteen hours after death, and for the pathological report I am indebted to Dr. A. N. Leatham. On opening the peritoneum fully three-quarters of the abdominal cavity was found to be occupied by the enormous liver and spleen, which together made up close upon one-sixth of the total body-weight. A small quantity of serous fluid was present. The stomach was entirely hidden from sight, being tucked away under the left lobe of the liver, and only a few coils of intestine were visible in the pubic and right iliac regions. The *liver* weighed 39 oz. (1.11 kgrm.), and was firm and dark in colour. No perihepatitis was present. Microscopically the outlines of the liver-cells were indistinct and the protoplasm was granular; the nuclei were mostly distinct and stained normally. In places the liver-cells had disappeared entirely. The capillary vessels were dilated. The *spleen* weighed $31\frac{1}{2}$ oz. (900 grm.), and was firm and of a dark purple colour. There were no infarcts and no perisplenitis on the surface. Sections showed a considerable increase of the connective-tissue stroma, with a diminution in number of the lymphoid cells. The Malpighian bodies were few, small, and ill-defined. The blood spaces were dilated. The *mesenteric glands* were considerably enlarged, but the *stomach* and *intestinal tract* were normal. The *kidneys* (5 oz. each) were tough and rather pale. Microscopically the protoplasm of the cells showed granular degeneration, but the nuclei remained more distinct than they usually appear in cloudy swelling. The tubules were slightly dilated. The *pancreas* showed no abnormal appearances. The *cervical* and *bronchial lymphatic glands* were enlarged but not tuberculous. The *pericardium* contained a small quantity of clear fluid, and the *heart* was slightly dilated, the muscle being pale and flabby;

the valves were normal. About an ounce of straw-coloured fluid was present in each *pleura*. The *lungs* were markedly emphysematous in their upper portions, while the bases were congested and presented areas of collapse.

A CASE OF HYPERPLASTIC TUBERCULOSIS OF THE TUNICA VAGINALIS.

By FREDERICK C. PYBUS, M.S., F.R.C.S.,

Surgeon to the Hospital for Sick Children, Newcastle-on-Tyne, etc.

THE patient, a boy, aged 3 years, was sent to me at the Hospital for Sick Children with a diagnosis of left inguinal hernia.

The *history* was as follows: The mother stated that soon after the birth of the child she noted a swelling in the left side of its scrotum, but paid little attention to it. When the child was a year old the father noticed the swelling, and advice was then sought. Her medical attendant told her that there was "water on the testicle," so the condition was then recognised as a hydrocele. The mother stated that the swelling varied in size, and was largest after the child had been sitting for some time. There was no pain at any time, and no abdominal symptoms had ever been present.

As the swelling did not entirely disappear after the application of lotion, the child was sent to another hospital, where a diagnosis of congenital hydrocele was made, and an operation recommended; this, however, was not carried out. At the age of three years the child was sent to me.

On examination, the only abnormality discovered was a swelling in the left scrotum, which was obviously of the testicle, was globular in shape, hard, non-translucent, and it was impossible to distinguish the testicle and epididymis. The cord was slightly thickened, as one finds in cases of hernia, but no abdominal contents appeared to enter the scrotum.

A diagnosis of tuberculosis of the testicle was made, although no other foci could be discovered.

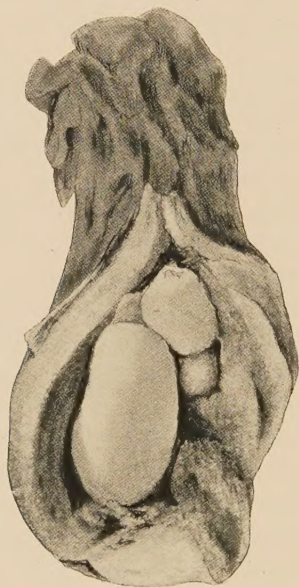
An *exploratory operation* was performed in April, 1912, an incision being made over the inguinal canal and the testicle drawn up from the scrotum.

A globular tumour was found about the size of a pigeon's egg. It was uniformly hard, and even now no distinction could be made between the testicle and the epididymis. It was impossible to find

the tunica vaginalis, so an incision was made on the anterior surface of the swelling.

After going through some new tissue, about $\frac{1}{4}$ in. thick, the tunica vaginalis was opened and the body of the testicle discovered, as shown in the illustration. As it was impossible to dissect off the thickened tunica, castration was performed, the spermatic cord being ligatured at the internal ring and the inguinal canal completely closed.

The child made a natural recovery, and at the present time, two years after the operation, remains quite well.



The thickened tunica vaginalis laid open, showing the normal testicle and Globus major and minor of the epididymis. The thickening was limited to the parietal layer. A portion of the thickened tunica has been removed for microscopic examination.

The specimen shows a remarkable thickening of the tunica vaginalis, whose inner surface is slightly granular. The thickening is limited to the parietal layer. The sac was empty, neither fluid nor pus being present. The testicle and epididymis can be seen, and have a normal appearance. On further examination, it was found that by minute dissection it would have been possible to remove most of the diseased tunica without damage to the testicle, epididymis, or its vessels. These latter lay in a deep groove on the posterior surface. A narrow peritoneal sac was present in the cord, and was continuous with the

tunica, although the canal was obliterated about half an inch above the testicle. The rest of this funicular process showed no disease.

Microscopic examination of the tunica made by Dr. Sewell, Pathologist to the Hospital for Sick Children, showed it to consist of hyperplastic tuberculous tissue containing numerous giant-cell systems.

There seems no doubt that the tunica vaginalis was infected from the abdominal cavity, although no symptoms of such disease have been present and no signs have been discoverable since the child came under my observation. In the early stage the symptoms were those of an ordinary congenital type of hydrocele, although at a later date the apparently enlarged testicle alone made diagnosis difficult, as has been pointed out.

FOUR CASES OF RECTAL POLYPUS OCCURRING IN ONE FAMILY.*

By ARTHUR F. HERTZ, M.D., F.R.C.P.,

Physician to Guy's Hospital.

THE parents of the patients are both alive and healthy and nothing abnormal was found in either of them on rectal examination. It is interesting to note, however, that in the first report of K. W—, when she was in the Hospital in 1906, it was said that the father was supposed to have a growth of the rectum. On being questioned recently with regard to this he did not know to what it referred, as he had no recollection of having suffered from intestinal symptoms.

There are four children. The eldest, H. W—, is aged 17 years. He is in the Navy, and I have not had an opportunity of seeing him. When aged 11 months, however, he suffered severely from hæmorrhage of the bowels, which continued for several months, and was so severe at one time that he nearly died. Since the age of 3 years there has been no return of hæmorrhage. His history is of importance only when taken in association with that of the other three members of the family, as it then appears probable that he also has a rectal polypus.

W. W—, aged 13 years, had pain on defæcation and passed a little blood on two occasions in 1910. From that time he had frequent diarrhœa with occasional vomiting after meals. His

* A paper read before the Surgical Section (Sub-Section of Proctology) of the Royal Society of Medicine on May the 13th, 1914.

mother brought him to see me in November, 1913, and said that she thought that he had a rectal polypus, as his symptoms were like those of his younger brother and sister, who had already been operated upon. He had, however, passed neither blood nor mucus, and there did not seem to be much evidence in favour of this diagnosis, but on rectal examination I found a small polypus on the posterior wall about one inch from the anal orifice. This was removed a few days later, and the patient has since remained well.

K. W—, is now aged 12 years. She was admitted into Guy's Hospital in September, 1906, for vomiting, constipation, and the passage of blood, which had first been noticed a fortnight before. She was rapidly relieved, but in November of the same year she was re-admitted with abdominal pain and pyrexia. It was thought she might be suffering from tuberculous peritonitis. She very slowly improved and left the Hospital three months later quite well. I first saw her in January, 1910, when she was brought to see me because of passing blood. I could not make a satisfactory rectal examination then, as her rectum was full of fæces. After an enema had been given with a good result, a proctoscope showed a small polypus on the posterior wall of the rectum about two inches from the anal canal, which was also quite easily felt by the finger. It was removed, and the patient remained well until 1912, when she returned with constipation and a history of having again passed a little blood.

The sigmoidoscope now showed nothing abnormal except slight catarrhal proctitis, which was clearly due to dyschezia, as an X-ray examination showed that the rectum was reached in nine and a half hours, and that the fæces then remained indefinitely in the rectum. By means of graduated enemata the dyschezia was cured.

J. W—, aged 8 years, passed some blood and mucus in January, 1913. He had occasional pain on defæcation with a tendency to diarrhœa. I saw him at the end of September, 1913, and found a small polypus on the posterior rectal wall one inch from the anal orifice. He has remained well since it was removed a few days later.

I have not been able to find any record of a similar group of cases of rectal polypi occurring in one family.

British Medical Association.

SECTION OF DISEASES OF CHILDREN, INCLUDING ORTHOPÆDICS.

Eighty-second Annual Meeting, held in Aberdeen, July the 28th to 31st, 1914.

Congenital Dislocation of the Hip.—Mr. T. H. OPENSHAW opened a discussion on this subject. He supported the view that the condition was due to intra-uterine pressure. Treatment should be commenced as soon as the diagnosis was made. The older the child the worse the deformity and the less successful the results. For children under five years of age, reduction by simple manipulation under an anæsthetic was possible; for older children, preliminary tenotomy of the muscles and weight extension was necessary. He did not think it possible to replace the head of the femur directly into the acetabular cavity, but by retention at the acetabular site for about six months it subsequently attained its correct position. Failures were chiefly due to the post-operative position being continued for too short a period. Open operation was necessary when Lorenz's method had failed, in cases over twelve years of age and in cases with a great degree of external rotation.

Practical Treatment of Lateral Curvature of the Spine.—Mr. PAUL B. ROTH said that scoliosis was due to a general weakness of muscles, ligaments and bones. It was postural at first and only became structural after a long period. Postural scoliosis was completely curable. Structural scoliosis could be arrested, but never cured. Treatment depended on training the patient's muscular strength and postural sense and on attention to the skeletal deficiency. Exercises and muscular training were the basis of treatment in all cases, as plaster only increased the weakness.

Treatment of Torticollis.—Mr. PAUL B. ROTH advocated subcutaneous tenotomy of the sternal origin of the sterno-mastoid. It was rarely necessary to divide the clavicular head and never necessary to divide the deep fascia. It was not a serious operation like the open method, and avoided an unsightly scar. Exercises for prolonged periods were useful when scoliosis was present. Retention apparatus was quite unnecessary.

The Thymus Gland in its Clinical Aspect.—Dr. A. E. GARROD said that the thymus was a gland of internal secretion and its extirpation in animals led to definite symptoms, viz. adiposity followed by cachexia and death in coma, bone changes similar to those in rickets and hypertrophy of the associated glands. The thymus might play a part in rickets and in a form of cretinism associated with adiposity, and its correlation with other glands, especially the genital glands, was important. Clinically, disease of the thymus leads to thymic death, thymic asthma and status lymphaticus. Many of the pathological manifestations of status lymphaticus were inaccessible clinically. Enlargement of the lymphatic tissue at the base of the tongue and of the thymus were the most important clinical signs. In older children other signs were available, mainly abnormalities of sexual characters. Treatment had hitherto been directed to removal of the gland or to its reduction by

X-rays. If it were proved that the defect was one of internal secretion, the proper treatment would probably be found in some extract from the ductless glands.

Technique of Thymectomy.—Mr. A. MACLENNAN had had encouraging results in eight cases. There were two types of operation: (1) Intracapsular enucleation, a simple and safe operation, which was indicated when the gland was normal or only slightly enlarged. (2) Resection of the manubrium, which was indicated when enlargement or adherence of the thymus rendered larger exposure necessary for its complete extirpation.

Appendicitis and Status Lymphaticus.—Mr. D. P. WILKIE quoted cases illustrating the dangers to which thymic subjects were exposed when attacked by acute abdominal infections. In two cases of appendicitis in which operation was performed within eight hours of the onset, and in which the appendix was not gangrenous nor perforated, death occurred in twenty-four and forty-two hours respectively from toxæmia. Post mortem both showed signs of status lymphaticus. In a third case, in which status lymphaticus was also found post mortem, appendicectomy was performed in the subacute stage, and was followed by fatal collapse as the sutures were being inserted. Chloroform had only been used to help induction and ether was the main anæsthetic. The possibility of status lymphaticus was a further argument against the use of chloroform in childhood.

The Association of Abnormal Types of Pneumonia and of Tuberculosis in Children with Thyro-lymphatic Hyperplasia.—Dr. C. MCNEIL (Edinburgh) said that status lymphaticus was a disease involving all the ductless glands, and commonly present in cases of sudden death in infants, being frequently associated with capillary bronchitis or pneumonia. In a recent epidemic of sudden deaths with coma in an industrial school near Edinburgh (*vide* BRITISH JOURNAL OF CHILDREN'S DISEASES, 1914, XI, p. 133), fulminant bronchitis and status lymphaticus had been present in every case. In the same school scrofula had been present, which he regarded as due to tuberculosis in subjects with status lymphaticus. He described scrofula as a constitutional disorder of childhood, characterised by catarrh, enlarged glands with tuberculous infection, skin rashes and tuberculosis of bones and joints.

Some Manifestations of Congenital Syphilis and their Treatment.—Dr. L. FINDLAY and Dr. MADGE ROBERTSON referred to a condition of chronic eczema of the angles of the mouth and mucous membrane of the lip of syphilitic origin. Thirty-seven cases all gave a positive Wassermann's reaction. Of 11 cases of congenital heart-disease this reaction was positive in 7 of the patients, and in the mothers of 2 others. Of 15 cases of cerebral diplegia in which a history of injury was obtained 5 gave a positive reaction, and of 10 with no history of injury 4 gave a positive reaction. A positive reaction was also obtained in 59 per cent. of cases of mental deficiency. The speakers advocated the use of scalp veins for intravenous injections of salvarsan. The mortality of cases treated with salvarsan and mercury was considerably less than that of those treated by mercury alone.

Chronic Pulmonary Tuberculosis in Children.—At a combined discussion of the Sections of Diseases of Children, of Medicine, and of Electro-therapeutics and Radiology, Dr. D. B. LEES laid special stress on

six typical dull areas found in tuberculous patients early in the disease (*vide* BRITISH JOURNAL OF CHILDREN'S DISEASES, 1913, x, p. 529). He recommended that careful records of these areas should be made each month. In infancy and childhood tuberculosis tended to spread by the lymphatics much more than it did in adults. Skiagrams should be taken by the shortest possible exposure, and attention should be concentrated on the fine apical mottlings. Peribronchial fibrosis, and calcified bronchial glands, so commonly seen in pulmonary skiagrams, were of much less importance.

Abstracts from Current Literature.

Medicine.

A variety of anæmia observed in rickety twins ('*Arch. des Mal. du Cœur*,' 1914, vii, p. 433).—**E. Lenoble**.—Two premature hypotrophic twins at the age of ten months, as the result of malnutrition, presented signs of rickets complicated by anæmia, and in one by enlargement of the spleen. Wassermann's reaction was negative. The changes in the plasma consisted in delay in the separation of the clot from the serum and in the milky appearance of the serum. The formed elements showed anisocytosis of the red cells without poikilocytosis, an abnormal pallor of the centre of most of the cells, and the usual changes in the hæmatoblasts, which were but slightly diminished in number and little affected in shape and physiological characters. The chief anomaly was the presence of myelocytes, which ranged from 0·10 to 1·10 per cent. The diminution in the number of red cells was very slight; the hæmoglobin was chiefly affected. Recovery took place under appropriate diet and martial medication.

J. D. ROLLESTON.

Eosinophilia and the exudative diathesis ('*Monatsschr. f. Kinderheilk.*,' 1914, xii, p. 603).—**A. Kroll-Lifschütz** finds that: (1) Eosinophilia occurs in infants and children with eczema and relapsing urticaria. (2) After disappearance of the cutaneous symptoms eosinophilia persists, but not to so great an extent as when the cutaneous symptoms existed. (3) Eosinophilia is also present in older children who have shown signs of the exudative diathesis in infancy, but at the present time are free from them. (4) From (2) and (3) it is manifest that eosinophilia is a constant accompaniment of the various cutaneous manifestations of the exudative diathesis, and is also found in children who had shown at one time such cutaneous manifestations. (5) Geographical tongue has nothing to do with eosinophilia. (6) In many cases of relapsing pharyngitis and bronchitis in children without typical asthmatical symptoms, and in many unexplained dyspepsias, which Czerny considers as due frequently to the exudative diathesis, no eosinophilia is found.

F. R. B. ATKINSON.

Eosinophilia in chorea ('*New York Med. Journ.*,' 1914, c, p. 225).—**S. S. Leopold**, as a result of the examination of twenty cases, finds as follows: (1) Eosinophilia is present in the majority of cases of chorea. (2) It is present almost invariably in recurring cases. (3) The absence of eosinophilia in doubtful cases of chorea may prove of diagnostic significance. (4) Its presence is in favour of the theory of the infectious origin of chorea.

F. R. B. ATKINSON.

Hæmophilia (*'Birmingham Med. Rev.,'* 1914, LXXV, p. 254).—**C. G. Teall** records nine cases, in only two of which a family history of hæmophilia was obtained: three occurred in adults and six in children. Five were boys, aged from 5 to 10 years, and one a girl, aged 12 years. She was a sporadic case, but the diagnosis of hæmophilia rested on her bruising easily, in small cuts always bleeding excessively and on her having effusions into joints.

J. D. ROLLESTON.

Three cases of infantile scurvy (*'Arch. de Méd. des Enf.,'* 1913, xvi, p. 128).—**J. Comby**.—(1) A male infant, who had been brought up first on condensed and then on sterilised milk, remained healthy to the age of eleven months. He then became unable to stand upright, and began to cry out with pain in the lower limbs, and to show petechiæ about the knees. The gums round the seven erupted teeth were swollen and bleeding. Fresh milk and orange juice were given. After two days' treatment the gums were much improved, and in ten days the child was cured. (2) A girl, aged ten months, was brought up on sterilised milk. She then developed malaise, feebleness of the limbs and a swelling on the left tibia. By a similar treatment to that described above a cure was effected within fourteen days. (3) A girl, aged fifteen months, began to scream, and refused to walk. The gums were normal, and there were no subperiosteal hæmatomata. The child had been brought up on humanised milk. A similar diet to that prescribed for the other cases was adopted, and within three days she could walk and had ceased to scream. Scurvy usually appears during the last six months of the first year of life. All the eighteen cases collected by Comby had pseudo-paraplegia, and all were rapidly cured by simple means.

CHRISTOPHER ROLLESTON.

An unknown form of disease (*'Jahrb. f. Kinderheilk.,'* 1914, LXXIX, p. 1).—**A. Niemann**.—A female child, aged 17 months, ill since the second month from birth, showed open fontanelles, inability to walk, pale skin, pale brown face, bluish spots extending from the twelfth dorsal vertebra downwards, oblique position of the eyes, snoring breathing, and huge abdomen filled with an enlarged liver and spleen. Blood normal. Wassermann positive. Mercury and potassium iodide were given, but no improvement occurred, and death took place four months afterwards. Necropsy: The normal structure of the spleen was absent, and the normal cells very few in number. The cells were very large, irregular, and often separated from each other, and contained a small, round nucleus. The protoplasm was very bright and contained vacuoles. The liver showed the same condition and could hardly be differentiated from the spleen. The abdominal glands as a whole were normal, but contained the same kind of cells. The author proposes the name "large-celled glandular metamorphosis" for the disease.

F. R. B. ATKINSON.

Two cases of primary splenomegaly in later childhood (*'Thèses de Paris,'* 1913-14, No. 309).—**Anna Safontzeff** records two cases, one in a girl, aged 11½ years, and the other in a boy, aged 14 years, of splenic anæmia passing into the stage of Banti's disease, which are regarded as of special interest on account of the rarity of the disease at this time of life. Ten other cases of the disease at about the same age are collected from literature; none of them from British sources. There is a discussion of splenic anæmia and Banti's disease on the usual lines.

H. D. ROLLESTON.

Syphilis of the liver with the picture of Banti's disease (*Clin. Journ.*, 1914, XLIII, p. 462).—**Sir W. Osler**.—Syphilis of the liver may closely resemble Banti's disease, the splenomegaly, anæmia, and hæmatemesis completely overshadowing the hepatic features. Osler records two examples in adults, and the following case in a boy, who was eleven years old at the time of his death. His first symptom was enlargement of the spleen. Some years later he developed nodes on the shins and syphilitic arthritis of the left knee. The liver was slightly enlarged, but the blood count was practically normal. Subsequently the liver decreased in size. Two months before death he developed ascites, and later bleeding from the gums and hæmatemesis. Anæmia then became pronounced, the red cells sinking to below 2,000,000. The necropsy showed the usual features of anæmia, œsophageal varices, a greatly enlarged spleen, and a liver very extensively affected by syphilis.
J. D. ROLLESTON.

The ætiology and pathology of splenic anæmia (*La Pediatria*, 1913, XXI, p. 748).—**G. di Cristina** gives details of a further series of twelve cases in which he specially investigated the question of tubercle and syphilis. He is of opinion that syphilis is the predominant factor in the pathology of infantile splenic anæmia, acting either directly, as in the great majority of cases, or indirectly as cause of congenital dystrophy. Tuberculosis is met with in a fair proportion of cases associated with syphilis, and contributes in aggravating the condition of the hæmopoietic organs. Tubercle alone may cause infantile and splenic anæmia, but is met with only in a limited number of cases. The pathogenic mechanism has not yet been sufficiently investigated. It is probable that there occurs a condition of chronic intoxication of the tissue concerned in the hæmopoietic function, either by means of poisons which pass through the placental filter or are eliminated by the milk, or that a small focus of tubercle is present in the infantile organism which deteriorates the tissues with its toxic products.

VINCENT DICKINSON.

Acute lymphatic leukæmia (*Arch. of Ped.*, 1913, xxx, p. 805).—**F. Huber** gives an account of this disease and reports three cases. The first was a boy, aged 14 years, who died about seven weeks after the onset of symptoms. He was very anæmic and had had epistaxis. The cervical and inguinal glands were enlarged, though not tender. The heart's action was rapid and irregular, and there was marked myocardial weakness. The spleen was greatly enlarged and the liver considerably so. The red blood-cells numbered 2,000,000, and the white 800,000 per c.mm.; hæmoglobin, 40 per cent. Severe attacks of epistaxis and hæmatemesis occurred, and the patient died in a markedly asthenic state. No autopsy was obtained. The second case was a boy, aged $4\frac{3}{4}$ years, whose symptoms began after an injury to a finger, with feverishness, cough, and marked enlargement of the cervical glands. The axillary and inguinal glands subsequently became affected, and a purpuric rash appeared. The patient presented a wax-like anæmia and exophthalmos due to hæmorrhage into the orbits. The liver and spleen were both enlarged to the level of the umbilicus. The blood showed: Red cells, 1,400,000, white, 31,200, per c.mm. (small mononuclears, 33 per cent.; large, 60 per cent.), and on the day of death, six days later, red cells, 1,160,000, white, 8600 (small mononuclears, 5 per cent.; large, 88 per cent.). After hæmorrhages from the bowel and oro-pharynx the patient died about the twenty-third day of the disease. The third case was also a

boy, aged 9 years, who, subsequent to diphtheria, had attacks of "apparent suffocation" with pain about the heart and frequent chills. There was marked anæmia, herpes about the nose and lips and a spongy condition of the gums, with a large slough on the lower alveolar mucosa. The glands generally were enlarged, and the skin showed an icteroid tint of a hæmolytic nature. The heart-sounds were irregular and faint, and a myocardial murmur was present. The spleen was palpable and the liver slightly enlarged. The temperature was high and irregular, and the blood-count gave: Red cells, 1,370,000, white, 47,000, per c.mm. (lymphoid marrow cells, 42 per cent.; large lymphocytes, 25 per cent.; small, 20 per cent.); hæmoglobin, 35 per cent. Death occurred as the result of profuse hæmatemesis. No autopsy was obtained.

T. R. WHIPHAM.

Two cases of acute infantile leukæmia (*Arch. de Méd. des Enf.*, 1914, xvii, p. 254). —**M. Péhu and J. Chalier.**—In the first case, a girl, aged 2 years, the symptoms consisted merely of a marked change in the general condition and a very considerable enlargement of the spleen. It was only towards the end of the disease that she developed ascites, enlargement of the liver, and ulceration of the tonsil. There were no hæmorrhages nor adenopathy. Blood count: Red cells, 4,217,000; hæmoglobin, 60 per cent.; white cells, 26,000. Differential count: Polymorphonuclears, 79·5; eosinophiles, 1·5; basophiles, 0; lymphocytes, 6; moderate-sized mononuclears, 4; large mononuclears and transitionals, 2·5; neutrophil myelocytes, 6·5; nucleated red cells, 1·5. There was a small degree of anisocytosis and poikilocytosis. The blood count thus resembled that of incomplete myeloid leukæmia or myeloid subleukæmia. In the second case, a boy, aged 5 years, the diagnosis of acute leukæmia was made before the blood examination on the generalised adenopathy, enlargement of the spleen, and tonsillar ulceration and rapid and serious involvement of the general condition. In many respects, however, the disease was atypical. The bucco-pharyngeal syndrome was merely represented by tonsillar ulceration. There were no hæmorrhages nor rise of temperature. On the other hand, there were considerable œdema of the face and limbs, and ascites. The enlargement of the spleen and lymphatic glands was pronounced. The blood count showed a marked myeloid reaction: Red cells, 3,200,000 to 2,594,700; hæmoglobin, 67 to 40 per cent.; white cells, 30,000 to 48,000. Differential count: Polymorphonuclear neutrophiles, 32 to 14 per cent.; eosinophiles, 25·5 to 3 per cent.; basophiles, 1 to 0 per cent.; transitionals, 8·5 to 1 per cent.; large mononuclears, 4 to 1 per cent.; lymphocytes, 6 to 70 per cent.; moderate-sized mononuclears, 6·5 to 10 per cent.; neutrophile myelocytes, 13·5 to 1 per cent.; basophile myelocytes, 0; nucleated red cells, 1 per cent. The writers regard this case as a transitional form between leukæmia and Hodgkin's disease. Both cases were fatal. No autopsy could be obtained in either.

J. D. ROLLESTON.

Acute lymphatic leukæmia after tetanus serum anaphylaxis (*Journ. Amer. Med. Assoc.*, 1914, lxii, p. 1473).—**E. J. Brown** reports the case of a boy, aged 14 years, who had previously had good health. Four weeks before he had been given a prophylactic dose of antitetanic serum for a slightly infected nail-puncture of the foot; over two years ago he had taken a similar dose of antitetanic serum for a similar nail-puncture of the foot. Within thirty-six hours after the second dose he developed a violent urticaria with large wheals and erythema, with vomiting and fever. After

a few days with decline of anaphylaxis a general adenitis of the cervical, axillary and inguinal glands was noticed, and the spleen and liver enlarged rapidly, the spleen, after two weeks, reaching the umbilicus; anæmia became profound, fever of moderate grade ensued with great prostration, and death from hemiplegia occurred at the end of four weeks. The blood examination, one week before death, showed hæmoglobin, 35 per cent., and white cells 420,000, consisting of large lymphocytes, 77 per cent., small lymphocytes, 18 per cent., polynuclears, 3 per cent., and eosinophilic polynuclears, 2 per cent. Among the red cells there were numerous megaloblasts and poikilocytosis. A necropsy was not obtained. The writer records this case only with the idea that it might help to solve some of the problems of the relation of anaphylaxis to other diseases, and does not pretend to assert that because the acute leukæmia followed the anaphylaxis in a possibly sensitised subject, it was produced by the second dose of tetanus serum.

T. R. WHIPHAM.

Benzol treatment in two cases of leukæmia (*Journ. Amer. Med. Assoc.*, 1914, LXII, p. 921).—**F. H. Smith** reports two cases of leukæmia, both of which were benefited by treatment with benzol. The first is described as a case of spleno-myelogenous leukæmia and was a boy, aged 13 years. The spleen was of enormous size, but the liver did not appear to be enlarged. The leucocytes numbered 372,000 per c.mm. A differential count was not made as it "seemed impossible," but it was noted that many myelocytes, eosinophils and polymorphonuclear elements were present. The red cells were 3,072,000 and no nucleated cells were seen. Hb. (Sahli) 55 per cent. For the first few days after commencing the treatment with benzol the leucocytes increased in number, the highest record being 499,000, but thereafter they slowly diminished until at the end of seven and a half weeks they were only 6600. The red cells at that time numbered about $5\frac{1}{2}$ millions. The benzol was then suspended, except for one short spell, and the leucocytes have ranged for the last two months between 8400 and 11,800. A differential count does not appear to have been made until after the treatment had been stopped, when the myelocytes were found to be 4 per cent. and the eosinophils 1 per cent. A decrease in the size of the spleen was coincident with the fall of the leucocyte count until at last it was only 1 in. below the costal margin. The initial dose of benzol was five drops three times a day. This was gradually increased, without any untoward symptoms, to twenty-four drops, and the dose was finally reduced to half that quantity. The second case was a coloured man, aged 56 years, the subject of chronic lymphatic leukæmia. The leucocytes numbered about a million per c.mm. and were nearly all small mononuclears. In this instance, treatment with benzol up to doses of 35 drops over a period of two months failed to produce any improvement.

T. R. WHIPHAM.

Chloroma (*Am. Journ. Med. Sc.*, 1914, CXLVII, p. 836).—**Walls and Goldsmith** record a characteristic case in a white male, aged 5 years, with an entire illness of three months' duration. Proptosis, tremors about the head, enlargement of the liver and spleen, gingivitis and necrotic pharyngitis were present. The blood showed moderate anæmia, leucocytes 9000–12,000, of which 80 per cent. were mononuclears, 4 per cent. of the total were myelocytes, and a small number of myeloblasts. This case is described as an example of myeloid chloroma. An extensive bibliography is appended, and

a general sketch of the subject is given. Chloroma is very closely bound up with acute leukæmia; and in a case of acute leukæmia, proptosis, tumours in the orbits, about the glabella and the temporal fossæ, justify the conclusion that chloroma will probably be found after death; but inasmuch as non-chloromatous growths sometimes occur in these situations in acute leukæmia, a dogmatic diagnosis cannot be made with certainty during life. The disease is acute, usually lasting two to four months, but a duration of fifteen months has been reported. Some examples of myeloid chloroma are quoted.

H. D. ROLLESTON.

Lymphocytic leukæmia (*Bristol Med.-Chir. Journ.*, 1914, xxxii, p. 147).—**E. C. Williams**, in recording a case in a boy, aged 3 years, draws attention to the following remarkable features: (1) The entire brain was riddled with hæmorrhages, some capillary, others massive; (2) the freedom of the heart-muscle from fatty change; (3) the terminal blood count showed that the white corpuscles, 98·7 per cent. of which were abnormal mononuclears, outnumbered the erythrocytes in the ratio of 62 to 38. Possibly Boycott's suggestion that in this condition some of the lymphocyte-like cells are really erythroblasts in the stage before any hæmaglobin is developed in the cytoplasm may help to explain this unusual count.

H. D. ROLLESTON.

The ætiology and vaccine treatment of Hodgkin's disease (*Journ. Amer. Med. Assoc.*, 1913, lxi, p. 2122).—**F. Billings** and **E. C. Rosenow** confirm the findings of Bunting and Yates, and Negri and Mieremet in Hodgkin's disease. They have also isolated a similar Gram-staining, non-acid-fast, polymorphous diphtheroid bacillus from the lymphatic glands in twelve cases of lymphadenoma, and have found marked benefit following the injections of a vaccine. The organism was obtained in pure culture in only three cases, while in the rest it appeared in conjunction with a staphylococcus. Whenever possible, a portion or all of two lymph-nodes were removed, one from the group involved the longest (usually the cervical region), and one from the group most recently involved (usually the inguinal region). In addition to planting small pieces of the lymph-node, emulsions in salt solution were prepared by grinding in a sterile motor in sterilised air and planting the emulsion on blood-agar, blood-serum slants (aerobically and anaerobically) and into ascites-dextrose agar. The latter method has the advantage of yielding earlier and more uniformly positive results. By this method the minimum number of viable organisms and a relative proportion of those present have also been determined. In this way it has been found that the lymph-nodes involved the longest in a given case, or those from cases of long standing showed more organisms and a relatively larger proportion of staphylococci, while the more recently involved lymph-nodes or those from the cases of shorter duration showed fewer organisms, but a relatively larger proportion of bacilli. The marked pleomorphic character of this organism as pointed out by Bunting and Yates was also noted. It has happened repeatedly that single colonies in the dextrose-agar, which showed bacilli only in smears, yielded in subcultures a pure culture of staphylococci aerobically, and forms of the bacillus either pure or in mixture anaerobically on the same medium. These facts suggest strongly that the associated staphylococcus is derived from the bacillus. The vaccines are prepared by growing the organism isolated on the surface of Loeffler's blood-serum, ascites-dextrose-agar or blood-agar slants for from twenty-four to

forty-eight hours. A suspension in salt solution is made, the clumps broken up as much as possible, and thrown down by fractional centrifugation. This clump-free emulsion is now standardised and heated to 60° C. (140° F.) for thirty minutes or one hour. Aerobic and anaerobic cultures are made on Loeffler's blood-serum, and these are incubated at least three days before the vaccines are used, to insure the sterility. Then phenol (carbolic acid), 0·5 per cent., is added, and the treated killed suspensions are placed in the ice-chest for use. Whenever staphylococci were found, an attempt was made to have the vaccine contain the bacilli and cocci in about the proportion found in the lymph-nodes. It is obvious, therefore, that an autogenous vaccine is to be preferred, although good results have been obtained with a vaccine prepared from a series of strains isolated from different cases. Seven patients were treated for long or short periods in hospital and were kept at rest. Five were under the care of physicians at home. Röntgenotherapy three times per week was applied to six patients at the hospital and was used with three of the patients under the management of others. Autogenous vaccine was used in all but one patient, who received the vaccine prepared from other patients. The vaccine was first given in the dose of from 5 to 10 millions and gradually increased to a maximum of 100 millions. The vaccine was given subcutaneously and repeated every five to seven days. In febrile patients the second or third dose has been associated with a reaction consisting of an increase of temperature (in one patient to 107° F.), rapid pulse, and general weakness and discomfort. In non-febrile patients only slight general reaction may occur with a rise of one or two degrees of temperature, slight general muscular aching and debility. But slight local reaction at point of injection occurs. In six of the hospital patients there was a uniform and relatively rapid decrease in the size of the lymph-nodes—one of these without Röntgen treatment. One patient treated out of the hospital without Röntgenotherapy, with very large lymph-nodes, big spleen and febrile, had a violent general reaction with the third vaccination, then became afebrile, and the swellings of the lymph-nodes and splenomegaly rapidly diminished. After five vaccinations, this patient passed from observation. Reports from physicians on two of the series show favourable progress with gradual diminution of the tumours of the lymph-nodes and improvement in a general way. One of these patients receives Röntgen treatment also; the other, vaccines only. Two of the patients are dead. One with rather rapid enlargement of the mediastinal lymph-nodes died soon after the third vaccination, from the result of mediastinal pressure. This patient was managed at his own home by the family physician, and the final clinical details are unknown. One patient with enlarged mediastinal lymph-nodes suffered for a year with respiratory and cardiac embarrassment. Right pleural effusion required frequent tapping. Under other care he received Röntgenotherapy. A short period before death the micro-organism was isolated from lymph-nodes of the neck and groin and from lymphoid tissue removed from the nasopharynx. The patient died from the result of mediastinal pressure after only one autogenous vaccination. Of patients under continued observation one is apparently well. There are no palpably enlarged lymph-nodes; the much enlarged spleen is no longer palpable; the blood-picture is normal; his weight and strength are normal. One patient who suffered from much enlarged mediastinal lymph-nodes and consequent dyspnoea, anasarca and great debility, was very much improved, with diminution of the size of all involved lymph-nodes, gained in weight and was subjectively comfortable, and has had the vaccines

and Röntgen treatment every week since June. In October a remittent type of fever developed with gradually increasing anæmia of the secondary type, a leucocytosis of about 18,000, with 80 per cent. of polynuclear cells. There was no increase in size of lymph-nodes. On November 24 she returned to the hospital. With rest in bed, with vaccines, Röntgenotherapy, and good food there is again rapid general improvement. The other patients are improving with varying degrees of rapidity.

T. R. WHIPHAM.

An ætiological study of Hodgkin's disease ('*Journ. Amer. Med. Assoc.*,' 1913, LXI, p. 1803).—**C. H. Bunting** and **J. L. Yates** have already described a diphtheroid organism which was obtained in pure culture from four cases of Hodgkin's disease and was observed in three others. They now publish a preliminary note on inoculation experiments of the organism into a monkey, and while they cannot yet claim to have produced Hodgkin's disease they assert that by repeated injections they have produced progressive enlargement of a single group of lymphatic glands which show histological changes identical with those seen in the lymphatic glands of human beings, where the disease is of the same duration. There was set up in the monkey a chronic lymphadenitis with atypical proliferation of the endothelial cells, a beginning proliferation of the stroma tissue, and a well-marked eosinophilic infiltration; also a periglandular sclerosis. Clinically, the animal's blood showed an absence of polymorphonuclear leucocytosis after injection of the organism. An increasing percentage of mononuclear elements was found, particularly of the transitionals, an increase in eosinophils following a primary fall, and an early increase in basophils, all of which are characteristic of the early stages in Hodgkin's disease. The blood-plates were also numerous and large forms were present. To the organism the writers have given the name *Corynebacterium Hodgkini*.

T. R. WHIPHAM.

An ætiological study of Hodgkin's disease ('*Journ. Amer. Med. Assoc.*,' 1914, LXII, p. 516).—**C. H. Bunting** and **J. L. Yates**, in a second note, record further experiments in which the diphtheroid organism which they cultivated from cases of Hodgkin's disease were injected into monkeys. These experiments show that the diphtheroid organism is pathogenic for the monkey, that it produces a progressive enlargement of the lymph-nodes, with lesions similar to those of Hodgkin's disease in man, and further that the blood-changes in the monkey are similar to those in man. The writers thus feel assured of the ætiologic relationship of the diphtheroid organism (*Bacterium Hodgkini*) to Hodgkin's disease.

T. R. WHIPHAM.

The blood in measles ('*Gazz. d. Osp.*,' 1913, xxxiv, p. 1432).—**E. Mensi**, from observations on seventeen cases, came to the following conclusions: (1) From two to six days before the eruption leucopenia is the rule and the eosinophiles are scarce. (2) During the eruption leucopenia and eosinopenia are almost constant. (3) After the eruption in three cases there was still a discrete leucopenia and in two an absence of eosinophiles. Hyperleucocytosis appears when an infective complication such as stomatitis or broncho-pneumonia occurs.

J. D. ROLLESTON.

Value of the blood-picture in the early diagnosis of measles, especially in relation to the question of isolation ('*Am. Journ. Dis. Child.*,' 1914, VII, p. 149).—**W. P. Lucas**, from the examination of nine

cases of measles and ten controls, comes to the following conclusions: (1) There is an early change in the blood-picture, which may be taken as the first evidence of the disease, viz. a change from the lymphocytic predominance characteristic of infants to a relative increase in the neutrophils. This change usually occurs about a week before any visible sign of infection. There is also a definite leucopenia, which sometimes appears eight days before any clinical signs, and sometimes appears simultaneously with them. The leucopenia is therefore not so reliable as the cell-picture. (2) There appears an ever-increasing number of disintegrated cells about the time when the cell-picture begins to change. In many cases there are large and swollen cells with breaking of protoplasm and nucleus. Lucas maintains that these findings are of value in the early detection and therefore isolation of cases suspected of measles.

J. D. ROLLESTON.

Recent researches on the presence of Leishman's parasite in the peripheral blood ('*La Pediatria*,' 1914, xxii, p. 27).—**S. Cannata** examined the blood obtained from pricking the finger in eight cases of children suffering from Leishmaniosis, and in seven of them he found the parasite in large mononuclear or neutrophile polynuclear leucocytes. He used Burroughs & Wellcome's stain. Details of the cases are given and micro-photographs of the preparations. In the only case where there was a negative result only one examination of the blood could be obtained; often subsequent examinations yield a positive result after the first has been negative. Some of the parasites preserved their shape, others were altered. The author wished to ascertain whether there was any connection between the time of day, the temperature of the patient, and the presence of the parasite in the circulation, but had to limit his observations to the time the children were brought to the clinic, usually between 10 and 11.30 a.m. Only in one case was there apyrexia, all the others had more or less fever.

VINCENT DICKINSON.

On the presence of Leishman's parasite in the peripheral blood of children suffering from kala-azar ('*Policlínica*,' 1914, ii, p. 324).—**J. A. Jordán** records a case of a girl, aged 5 years, in whom examination of the peripheral blood, as recommended by Cannata, showed the existence of Leishman's parasite. Hitherto it had been supposed that the diagnosis of kala-azar could only be made by puncture of the spleen—a method frequently objected to by the parents. Kala-azar is as frequent in Spain as in Italy, though Spanish physicians do not appear to be familiar with it.

J. D. ROLLESTON.

Report of 110 cases of infantile Leishmaniosis ('*La Pediatria*,' 1914, xxii, p. 81).—**R. Jemma** observed these cases in the children's clinic at Palermo. More cases came from the suburbs rather than from the city itself. The age was from seven months to six years, the majority (sixty) occurring between the ages of one and two years. The sex incidence was unimportant. The largest number occurred in June and July. The majority (ninety) belonged to the poorer classes. The pathological anatomy presented considerable variety, and is described under three groups. The duration was variable, and three forms were distinguishable: (a) Acute, lasting thirty-five to forty days; (b) subacute, from three months to one year; and (c) chronic, from one to three years or more. A diminution in the number of blood-platelets was noticed, and the discovery by Cannata of the parasite in the

peripheral circulation was confirmed. Deviation of the complement, wholly or partially, was found in thirteen out of eighty-eight cases, *i. e.* 16 per cent. No advance is reported in the treatment of the disease, which, according to the author, is enormously on the increase in Italy.

VINCENT DICKINSON.

Serological researches in Leishmaniosis (*La Pediatria*, 1913, xxi, p. 801).—**G. di Cristina** and **G. Caronia** have made extensive researches on this subject. With regard to the statement that the dog is spontaneously affected with a disease that can be identified clinically and ætiologically with infantile Leishmaniosis they made this experiment: They made an alcoholic extract of 200 fleas from an infected dog. This extract was used as antigen in investigating complement deviation with the blood-serum of children immunised with cultures of canine and human Leishmania, who already showed marked complement deviation with the respective specific antigens. In all their experiments the result was invariably negative. As regards the pathogenesis of this affection the authors assert that Leishman's parasite behaves like other infective germs, inasmuch as it acts on the organism with special toxins and endotoxins, inducing the formation of anti-bodies. The complementary power of the blood was always increased in the advanced stages of the affection. They used as a therapeutic measure a nucleoprotein extracted from cultures of the parasite, but the effects were inconclusive, although such treatment seemed, on the whole, beneficial.

VINCENT DICKINSON.

Infantile kala-azar (*Le Nourisson*, 1914, ii, p. 10).—**L. Lagane** points out that under the name Leishmaniosis are included Indian kala-azar, Mediterranean or infantile kala-azar, and cutaneous lesions such as oriental boil, but the first two are probably identical, and are caused by the Leishman-Donovan bodies. At one time they were thought to be distinct, the Mediterranean form being capable of inoculation into dogs and monkeys. Kala-azar is the first protozoal infection in man in which the parasite has been cultivated in an artificial medium. The organism is obtained by puncture of the spleen or bone-marrow, and is a round or oval body two to four μ in diameter. It consists of a clear protoplasm and two chromatophil bodies—the nucleus and the centrosome—the latter of which is characteristic, and on cultivation it appears flagellated, but does not show an undulating membrane. Infantile Leishmaniosis is little known outside the Mediterranean basin. It occurs in children chiefly during the first three years of life, and is possibly contracted from dogs through the medium of the flea, though possibly the mosquito or bug may be the infecting agent. The disease is characterised by irregular fever, which is uninfluenced by quinine and is accompanied by digestive troubles, marked anæmia, and great hypertrophy of the spleen. The liver is also hypertrophied and the lymphatic glands may be enlarged. Wasting is extreme, and œdema and hæmorrhages occur. The prognosis is extremely bad, as few cases recover. The pathological changes consist of an atrophy of the Malpighian bodies and a general fibrosis of the spleen, and a fatty degeneration accompanied by fibrosis in the liver. Treatment is unsatisfactory. Numerous remedies have been tried, such as quinine, atoxyl, salvarsan, hectine, cacodylate, etc., but none appear to be specific. Vaccine therapy also has proved ineffectual hitherto.

T. R. WHIPHAM.

Malaria in infants (*Arch. of Ped.*, 1914, xxxi, p. 244).—**W. Weston**.

—Wherever malaria is endemic, the birth-rate is low and infantile mortality is high. In the Southern States malaria reaches its height in July, August, and September, while along the South Atlantic Sea-border and the Gulf Coast it often prevails throughout the year. The pernicious type is most often seen in the early autumn. In the South the tertian variety is the most frequent and the quartan the least. The incubation period is not over three to five days and may be less. The attack usually begins suddenly with vomiting or convulsions. The temperature rises rapidly to 105° F. or over. Herpes labialis often appears in a few hours. The spleen rapidly enlarges and the liver is usually enlarged. The skin is more or less jaundiced. The tongue is coated, and there are anorexia and vomiting. Constipation or diarrhoea may follow an attack. Many diseases in children may be mistaken for malaria, especially pyelitis, septicæmia, pyæmia, broncho-pneumonia and acute indigestion. The mortality rate is high, especially in the æstivo-autumnal form. Owing to gastric irritability, in mild attacks no quinine should be given for at least three hours after the temperature has become normal, then 2 grms. of the bisulphate should be given in aqueous solution every two hours for twenty-four hours. Then every four hours for twenty-four hours, and finally, 3 grms. morning and evening for three weeks. In pernicious malaria quinine must be given intravascularly or by rectal injection.

J. D. ROLLESTON.

Congenital malaria (*Arch. of Ped.*, 1914, xxxi, p. 251).—M. H. Bass refers to the papers of Meara (*vide* BRITISH JOURNAL OF CHILDREN'S DISEASES, 1910, vii, p. 180) and Beekel (*ibid.*, 1912, ix, p. 39), and others, and records the following personal case: A female infant, born in New York City, of a mother who had had untreated tertian malaria for four weeks during her fifth month of pregnancy, was taken ill at the age of four weeks. The symptoms were pallor, irritability, green stools and loss of weight. The extreme anæmia and enlarged spleen led to a blood examination with the finding of tertian malarial plasmodium. Rapid recovery took place under quinine and iron.

J. D. ROLLESTON.

The normal blood-pressure in children (*Monatsschr. f. Kinderheilk.*, 1914, xii, p. 20).—E. Nirrnheim examined an equal number of boys and girls between the ages of six and fourteen years, and found a constant increase in the blood-pressure with the development of the individual. His observations thus confirm those of Wolfensohn-Kriss, Kaupe, and Salle (*vide* BRITISH JOURNAL OF CHILDREN'S DISEASES, 1911, viii, p. 469).

J. D. ROLLESTON.

Permanent microsphymia with mental debility (*La Clin. Infant.*, 1914, xii, p. 52).—G. Variot reports a case in a woman, aged 37 years, previously published cases referring exclusively to children. The pulse was hardly perceptible, although the heart-beats were regular and strong. The radial arteries were more resistant than normal. Extremities cold and livid. Temperature in axilla, 36.5° C. The pulse and temperature were unaffected by administration of thyroid extract. The blood-pressure was normal. The patient's height was 1.50 m., and intelligence below normal. She was married and had a child of normal intelligence and who presented no microsphymia.

VINCENT DICKINSON.

The collateral thoracic circulation in the diagnosis of tracheo-bronchial adenopathy (*La Pediatria*, 1914, xxii, p. 401) —S. Maggiore

found that in all cases where there was pre-thoracic collateral circulation, radioscopy showed the presence of adenopathy. Usually, the more marked the venous circle the larger were the glands. The site of the venous enlargement was limited in the majority of cases to the second intercostal space between the sternal border to the clavicular, in some cases to the first space, very exceptionally to the third. Out of 131 cases the venous circle was noticed 78 times on the right side only, 40 times on the left; in 21, it was generalised.

VINCENT DICKINSON.

Enlargements of the heart and disturbance of its rhythm in children (*Journ. de Méd. de Paris*, 1913, xxxiii, p. 915).—**P. Nobécourt**.—Dilatation and hypertrophy of the heart occur in diseases of that organ or of the kidneys, lungs, pleura and mediastinum, and in deformities of the chest-walls. One also frequently finds in children increased cardiac dulness, with normal heart-sounds and extra-cardiac bruits. Sometimes these signs are associated with tachy- or bradycardia, arrhythmia, etc.; and the child may complain of palpitation and cold, and have blue extremities. If there has been a preceding typhoid or scarlet fever, pneumonia, acute rheumatism or chorea, these signs may be due to myocarditis, or commencing endo- or pericarditis. Rapid growth itself is not responsible, but if associated with causes of cardiac enfeeblement it may help. Such causes are adenoid vegetations causing some respiratory obstruction, dyspepsia with gastric dilatation, intermittent albuminuria, anæmia, etc., especially if associated with undue physical strain, such as cycling, gymnastic exercises, running, rowing, and the like. Arrhythmias in children are very common and are often physiological. Tachycardia may be emotional or occur in convalescence from acute specific diseases; with it the blood-pressure is generally low. This orthostatic tachycardia is not a sign of disease and is generally improved by moderate exercises. It is often associated with respiratory arrhythmia. Extra systoles may be due to increase of cardiac excitability, to toxic causes, to circulatory defects, and to heart disease. The toxic causes are tea, coffee and tobacco, or digitalis, belladonna or salicylates. Hypertension may cause extra-systoles, and they are also found in organic heart disease of the muscle, valves or pericardium. Bradycardia may be due to some abnormal excitation of the vagus nucleus or its trunk. It may therefore occur in meningitis, tumours of brain or mediastinum, etc., or in convalescence from acute illness. Occasionally there is auriculo-ventricular disassociation with complete heart block. This may be due to acute specifics such as diphtheria. It is recognised by tracings from the jugular and apex.

J. PORTER PARKINSON.

Case of acute rheumatic carditis and auricular fibrillation in a child (*Heart*, 1913, v, p. 15).—**G. A. Sutherland** and **Carey Coombs** record a case of rheumatic carditis of such virulence as to prove fatal within six days in a child aged 5 years. Histologically the myocardial changes were of the rheumatic type, but resembled those of experimental rheumatism in their acuteness and virulence. An additional point of interest lay in the fact that auricular fibrillation developed before death. The myocardial changes in the auricular walls were found to be of unusual severity.

REGINALD MILLER.

Signs of diagnosis of cardio-pericardial symphysis (*Gaz. des Hôp.*, 1914, lxxxvi, p. 147).—**E. Delorme**.—The past history is of great im-

portance with reference to severe rheumatism or tuberculosis, other causes are less common and more easily discovered. Many signs, such as hypertrophy, or dilatation, or disease of the valves of the heart are frequent, but may be unaccompanied by pericardial adhesion. Fixity of the apex of the heart was once considered almost pathognomonic, and in conjunction with other signs it is of great value. Other valuable signs are: disappearance of the impulse of the heart's apex, undulatory movement of the pericardium (Jaccoud), systolic recession of the impulse and the epigastrium, systolic recession of the intercostal spaces, recession of epigastrium, increase and invariability of cardiac dulness or percussion, fixity of the apex of the heart, invariability of the cardiac shadow on X-rays examination, diminution of diaphragmatic movements, systolic recession of the intercostal spaces posteriorly (Broadbent), inspiratory recession of the lower part of the sternum and chest (Wenckebach). This pericardial adhesion may be complicated by general or local adhesions, anteriorly, posteriorly, inferiorly, etc.

J. PORTER PARKINSON.

The clinical symptoms and morphology of congenital tricuspid stenosis (*Jahrb. f. Kinderheilk.*, 1914, LXXIX, p. 320).—E. Wieland describes the history and post-mortem examination of a female child, aged 4 months, diagnosed during life as suffering from septum defect. The autopsy revealed a triangular defect immediately beneath the right aortic valve, and complete absence of the tricuspid opening and valve. The author draws attention to the intermittent character of the basic systolic murmur and the peculiar form of septum defect.

F. R. B. ATKINSON.

Acute nephritis in an infant with congenital heart disease (*Journ. Amer. Med. Assoc.*, 1913, LXI, p. 1020).—H. M. McClanahan reports the case of a "blue" infant, aged 1 year, who was attacked by scarlet fever, and on the fifth day began to show œdema about the face. The swelling increased and ascites developed. The urine was of low specific gravity, and contained albumin, red and white blood-cells, and hyaline and granular casts. A systolic murmur was audible all over the cardiac area, and the red blood-cells numbered 9,800,000. The case terminated fatally, and at the necropsy the heart was found to be of adult size, with a large patent foramen ovale and a deficiency in both auriculo-ventricular valves. The kidneys showed marked interstitial nephritis with chronic passive congestion. The epithelium was degenerated and the capsule thickened. There was also a general round-cell infiltration. The other organs all showed signs of passive congestion.

T. R. WHIPHAM.

Surgery.

Splenectomy for Gaucher's disease (*Arch. of Ped.*, 1914, XXXI, p. 340).—C. Herrman, H. Roth and E. P. Bernstein record the ninth operative case and sixth recovery from splenectomy in Gaucher's disease. The patient, a boy, aged 13 years, had been known to have an enlarged spleen since the age of 4 years. One sister also had an enlarged spleen, these two being the two last of a family of eight children. He had the characteristic yellowish thickenings of the conjunctivæ, splenomegaly, moderate hepatomegaly, epistaxis, moderate anæmia with a low colour index, leucopenia, and a progressive fall in the percentage of the polymorphonuclear leucocytes. The Wassermann and von Pirquet tests were

negative. The spleen, which weighed nearly 3 lb., showed the characteristic large-celled hyperplasia. Cultures, both aerobic and anaerobic, were negative. Of fifteen authentic cases of Gaucher's disease, three only were in males. Reference is made to a case of Gaucher's disease in a child of 17 months reported by **Niemann** (*Jahrb. f. Kinderheilk.*, 1914, LXXIX, p. 1), in which the Wassermann reaction was positive, although anti-syphilitic treatment had no effect and the necropsy showed an entire absence of specific lesions.

H. D. ROLLESTON.

Splenectomy in Gaucher's disease (*Am. Journ. Med. Sc.*, 1914, CXLVIII, p. 213).—**J. F. Erdmann** and **J. J. Moorhead** admit, as established by operation or necropsy, sixteen cases of Gaucher's large-celled hyperplasia of the spleen. In ten of these sixteen cases splenectomy has been performed, with post-operative death in two and recovery in eight. The youngest patient was the authors' case, aged $3\frac{1}{2}$ years, and was well sixteen months after splenectomy. The oldest patients (two) were aged 37 years. Nine of the patients were females and one a male. In five of the ten cases the disease was present in other members of the family. The main reasons for splenectomy are that all other forms of treatment, including X-ray exposures, have failed, and that, even in advanced cases, it relieves symptoms. Early operation is advocated as likely to yield a low operative mortality. The authors' patient weighed $26\frac{1}{4}$ pounds, and the spleen 15 ounces. In addition to the characteristic cells of Gaucher's disease there were miliary tubercles in the spleen. The liver was enlarged before operation, and was somewhat increased in size some months after operation. **Babes** (*Compt. rend. Soc. Biol.*, 1913, LXXV, p. 575) describes a case of successful splenectomy for Gaucher's disease, which is not included by Erdmann and Moorhead. The patient was a male, aged 22 years, and the spleen weighed 43 ounces. The large cells, $20-40\ \mu$, showed eosinophile protoplasm, and there were numerous eosinophile leucocytes in the spleen. Babes suggests that the large size of the Gaucher cells is due to the presence of lipoids, which, being produced by metabolic aberrations in the spleen, liver, and bones, are absorbed by the cells. As bearing on the formation of lipoids by disturbances of metabolism he refers to a case of diabetes with large-celled hyperplasia of the spleen, reported by Schulze-Braunschweig.

H. D. ROLLESTON.

Splenectomy for Banti's disease (*Boston Med. and Surg. Journ.*, 1914, CLXX, p. 832).—**M. G. Sturgis** records the case of a boy, aged 18 years, who had local suppuration after amputation of the arm for a gunshot wound. Within a year of this his spleen was found to be enlarged and subsequently gastro-intestinal hæmorrhage and signs of ascites appeared. Just before operation the liver was noted to be enlarged, and the blood showed erythrocytes 4,000,000, leucocytes 8000, polymorphonuclears 65 per cent., small mononuclears 25, large mononuclears 5, eosinophiles 3, and transitionals 2. The operation revealed free fluid in the abdomen and perisplenic adhesions. The spleen weighed 800 grms., and histologically was described as a "chronic toxic spleen." For four days after the splenectomy there was gastro-intestinal hæmorrhage. Fourteen months later he was well, but the leucocyte count was abnormal: lymphocytes 43 per cent., large mononuclears and transitionals 15, polymorphonuclears 34, eosinophiles 8 per cent. Total leucocyte count 8000.

H. D. ROLLESTON.

Acholuric jaundice; splenectomy ('*St. Bart.'s Hosp. Rep.*,' 1913, XLIX, p. 51).—**H. Thursfield**.—This disease shows itself by the presence of chronic jaundice, frequently seen at or soon after birth, and in bile pigments in the stools, but not in the urine; it occurs frequently in several members of one family. The best treatment is splenectomy. The mortality in such selected cases should not be more than 2-3 per cent. Fragility of the red corpuscles to solutions of saline is pathognomonic of the congenital condition. The author mentions a case of his own in a boy, aged 9 years, treated successfully by splenectomy, and others in the literature.

F. R. B. ATKINSON.

Ankylosis of the mandible ('*Journ. Amer. Med. Assoc.*,' 1914, LXII, p. 1014).—**R. C. Creasy** reports the case of a boy, aged 13½ years, undersized and under-weight, who had a limited motion of the mandible permitting of but ¼ in. separation of the incisors and no lateral motion. At the age of 4 years and 2 months, while swinging, he fell 8 ft. and struck his chin on the hard, wood floor. As the child suffered intense pain and was unable to move the mandible, a physician was summoned. Palliative treatment was instituted, and the child fed through a tube for a period of two months. No attempt was made to use the mandible, and it ankylosed in the position in which it was found. Röntgenoscopy disclosed the condition to be a previous fracture of the ramus, the line of fracture running into the joint, and a mass of callous substance filling the joint. Ether was administered, and the limit of motion was still the same, thus eliminating the spasmodic condition of the muscles as being one of the causal factors for the limited motion. Under force with the use of two oral mouth-gags, the degree of force applied being the same, thus avoiding any lateral dislocations, an increase of the limited motion to 1½ in. was obtained; this treatment was carried out three successive times at intervals of one week. During the time intervening the boy was permitted to make good use of the oral screw. The results obtained by this procedure were excellent.

T. R. WHIPHAM.

Necrosis of the mandible ('*Brit. Dent. Journ.*,' 1914, xxxv, p. 297).—**O. R. Ennion**.—A girl, aged 11 years, had an attack of scarlet fever. Convalescence was delayed for several months owing to the septic condition of the throat. The teeth in the lower jaw loosened, and there was considerable constitutional disturbance. Under an anæsthetic the periosteum was stripped off the necrosed body of the mandible, and the buccal cavity drained by an incision behind the angle of the jaw. For the next six months the child was fed on milk. The inferior dental nerves were both destroyed, and all sensation lost on the lower side of the face. Sequestra became pushed up from below by the rapid formation of new bone, and rendered nourishment difficult. The whole mandible was therefore removed, except the left condyle, and the child grew a new jaw with very good movement. Return of sensation was complete.

J. D. ROLLESTON.

A case of congenital malformation of the forearm with a short consideration of the ætiology ('*Med. Chron.*,' 1914, xxvii, p. 11).—**J. P. Buckley** describes a case of a boy, aged 12 years, in whom the right upper arm was normal up to the elbow, but the forearm was represented by a stump, three inches long, at the end of which were five rudimentary digits. He looks on the condition as one of intra-uterine amputation.

F. R. B. ATKINSON.

Two instances of congenital abnormality (*'Austral. Med. Gaz.,'* 1914, xxxv, p. 313).—**E. Cuthbert Hall**.—(1) At birth a male child was found to be minus a radius in both arms. The hand was parallel to the humerus. (2) A child was born with six toes, a condition which had existed in thirteen instances altogether in the family for the last 150 years.

F. R. B. ATKINSON.

Total congenital absence of the femur (Phocomelie) (*'Cleveland Med. Journ.,'* 1913, xii, p. 321).—**J. J. Thomas** reports this rare abnormality in a syphilitic baby, born by the breech to a syphilitic, but otherwise healthy, woman. The bones distal to the knee-joint were normal. Bilroth was the first to describe this defect. Klaussner, in 1900, could only find twelve cases on record.

CHRISTOPHER ROLLESTON.

Congenital absence of the femur (*'Journ. de Méd. de Bordeaux,'* 1914, lxxxv, p. 252).—**Codet-Boisse**.—A female child, aged 5 months, normal in other respects, had congenital absence of the right femur and dislocation of the left. The right thigh was non-existent, and the foot barely reached to the level of the heel on the normal side. The X-rays showed a rudimentary right femur, considerably reduced in volume and length— $3\frac{1}{2}$ cm. as compared with the normal limb, which was 13 cm. The probable cause of the malformation was intra-uterine compression. No treatment was possible. In the subsequent discussion **Petit de la Villéon** alluded to his case of congenital absence of both femora (*vide* BRITISH JOURNAL OF CHILDREN'S DISEASES, 1911, viii, p. 472), and insisted on the fact that the arrest of development only affected the skeleton and not the muscles of the buttock or thigh.

J. D. ROLLESTON.

Lumbo=sacral spina bifida. Congenital articular stiffness of both knees in extension. Double equino=varus; malformation of the anus (*'Journ. de méd. de Bordeaux,'* 1914, lxxxv, p. 158).—**H. L. Rocher** and **J. Souchet** describe this case of a child, aged 3 months. They did not think operation of any kind advisable, and consider that the articular stiffness will probably diminish under massage and mobilisation.

F. R. B. ATKINSON.

Schlatter's disease (*'Practitioner,'* 1914, xcii, p. 591).—**C. Corben** describes a case of a boy, aged 7–8 years, who caught his heel going down stairs, with the result that the tubercle of the left tibia was partly avulsed. The treatment consisted in strapping with Scott's dressing and firmly bandaging the knee. In $2\frac{1}{2}$ months the treatment was discontinued. He discusses the literature of the subject.

F. R. B. ATKINSON.

Congenital absence of the fibula (*'Semana Med.,'* 1914, xxi, p. 2).—**Rivarola** describes nine cases of this deformity with some photographs and skiagrams. In many of the cases there were other defects, viz. absence of the two outer metatarsal bones and phalanges. The operation carried out in selected cases is described.

M. D. EDER.

A case of bone cyst of the os calcis (*'Boston Med. and Surg. Journ.,'* 1914, clxx, p. 611).—**W. P. Coues** examined by the X-rays the left os calcis of a boy, aged 14 years, and found a cyst of the whole of the central portion of the body of the bone. No operation was advised.

F. R. B. ATKINSON.

Isolated disease of the scaphoid (*Journ. Amer. Med. Assoc.*, 1914, LXII, p. 1155).—**F. J. Fassett** states that only eight cases of isolated disease of the scaphoid bone of the foot in children or Köhler's disease, have been described since 1908. He here records two cases from his own practice. The first was a girl, aged $2\frac{1}{2}$ years, seen August 7, 1911; began walking at 16 months; she was sick for a month in August, 1910, with fever and swollen glands; a month before examination she slipped while the foot was caught between the bed and the wall; she limped that day and could not walk the next nor at any time since. Examination proved negative except for the right foot, which was swollen; there was no tenderness on the tibia or fibula, phalanges, or metatarsus; there was moderate tenderness over the tarsus, especially on the inner side; the foot was held by muscle spasm in moderate equinovalgus. In both lateral and antero-posterior views, röntgenograms revealed a dense pearly shadow of the scaphoid with moderate atrophy of the surrounding bones of the tarsus. Röntgenoscopy was otherwise negative. Plaster-of-Paris was applied to the foot and lower leg and occasionally renewed. During the first month the symptoms all increased; during the second month the child walked with comfort in the plaster and a röntgenogram taken two months after the first showed less atrophy of the surrounding bones. The appearance of the scaphoid was unchanged except that at the centre there was a distinct "punched-out" look. Plasters were continued for two months more and a Whitman plate was worn for a few weeks after the plaster was removed. All symptoms at this time had disappeared, and there has been no relapse in the past two years of walking without support. Case 2, a girl aged 4 years, seen October 27, 1913, for several weeks had had moderate tenderness in one foot, which was slightly swollen and warm. The röntgenogram showed moderate retardation of growth and increase in density of the scaphoid in this foot. Examination and history otherwise negative. The child was treated in much the same manner as was case 1. The foot was supported for a little over two months. All symptoms disappeared. Pfahler states that all authors agree that the condition is not tubercular. The fact that a distinct sclerosis indicated by the increased density of the ossifying centre is present, points to an inflammatory process. It would seem, therefore, that the disease is an osteitis, probably of traumatic origin, which interferes with the development of the bone. The author, however, has not entirely given up the view that the lesion may be tubercular in origin.

T. R. WHIPHAM.

The vesalianum mistaken for a fracture of fifth metatarsal by inversion of foot (*Boston Med. and Surg. Journ.*, 1914, CLXX, p. 725).—**W. P. Coues**.—The vesalianum is the proximal and external part of the tubercle of the fifth metatarsal and is extremely rare. A girl, aged 12 years, slipped and fell, her left ankle turning under her. Considerable pain and lameness resulted. X-rays showed what was apparently a fracture of the base of the fifth metatarsal, but after four weeks' immobilisation in plaster the skiagram showed the same condition as before. A skiagram was then taken of the other ankle, and the same shell-like bone was seen united to the metatarsal by cartilage. The left foot was now no longer tender, and its function was completely restored. Coues recommends that a skiagram should be taken of each fifth metatarsal bone whenever diagnosis has been made of fracture of the base of the fifth metatarsal.

J. D. ROLLESTON.

Dorsal dislocation of proximal phalanx of great toe (*Journ. Amer. Med. Assoc.*, 1914, LXII, p. 1086).—D. W. Deal records the case of a boy, aged 14 years, who had a painful and swollen foot due to a horse falling on it. Examination showed marked deformity of the right foot, and suspected fracture with dislocation. A röntgenogram disclosed a dorsal dislocation of the proximal phalanx of the great toe, with a plantar displacement of the metatarsal, and a fracture of the distal end of the second metatarsal bone. Though Malgaigne calls attention to the fact that four out of ten cases of this type are irreducible, reduction under general anæsthesia was readily accomplished and the end-results are perfect. The condition is rare, the total of recorded cases being only twenty.

T. R. WHIPHAM.

Review.

CARDIOPATHIES DE L'ENFANCE. By Dr. P. NOBÉCOURT, Professeur agrégé à la Faculté de Médecine, Médecin des Hôpitaux de Paris. Paris Librarie: O. Berthier. Price 6 francs.

It was with pleasure that we opened this little book to read it, and our anticipations were not disappointed. In a series of clinical lectures the author has given us a review of the principal types of cardiac disease as it is seen in children. It is written with that Gallic verve after which the Briton toils heavily, but in vain. There is a lucid chapter on congenital abnormalities, a subject which is very difficult to deal with systematically. It is materially improved by some simple illustrations of the blackboard type. We were a little surprised to find no mention of the value of skiagraphy in the diagnosis of patency of the ductus arteriosus. The remainder of the book is mainly occupied with a consideration of the various phases of rheumatic carditis and its sequelæ. The author has gone a long way towards acceptance of many of the principles on which the modern British view of this disease is founded. He is always insisting on the paramount importance of the myocardium, and on the frequency and seriousness of the direct injuries to the cardiac muscle inflicted by rheumatic infection of the heart. He evidently looks upon carditis, polyarthritis, and chorea as three different manifestations of the same pathological process, and he lays due stress on the insidious and relapsing character of the infection. His attitude towards the diagnosis of pericardial effusion and adhesion in cardiac rheumatism is a careful one, much more respectful to post-mortem facts than most clinicians are in treating of these matters. There are also admirable paragraphs on the tuberculous and syphilitic forms of mediastino-pericarditis. He is a little too brief, perhaps, in his summary dismissal of the graver forms of arrhythmia, but he makes it clear that in a child an irregular pulse is but rarely due to cardiac disease. The book is full of diagrams of cardiac dulness, but there is little or no acknowledgment of the pioneer work of Dr. D. B. Lees in this connection.

Those interested in the cardiac diseases of children should not miss Dr. Nobécourt's clinical lectures, which contain many new and illuminating views of the subject. The chapters on treatment are particularly to be commended, both for sanity and attention to detail, and throughout the book there is abundant evidence to show that the author is dealing with matters from the standpoint of his own personal experience—the only satisfactory basis for a treatise on any branch of medicine.

C. C.